

Docket No. AUS920030312US1

CLAIMS:

What is claimed is:

1. A method for performing multiple path input/output,
5 the method comprising:
 configuring a path control module for a device with
 a set of primary paths for the device;
 configuring the path control module with a set of
 standby paths for the device; and
10 issuing transactions to the device using the set of
 primary paths.
2. The method of claim 1, wherein the step of issuing
 transactions includes:
15 determining a first path within the set of primary
 paths;
 issuing a transaction to the device using the first
 path; and
 responsive to the transaction failing, failing over
20 to the set of standby paths.
3. The method of claim 2, further comprising:
 determining a second path within the set of standby
 paths; and
25 issuing the transaction to the device using the
 second path.
4. The method of claim 2, further comprising:
 marking the first path as down or inactive.

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5. The method of claim 3, further comprising:
responsive to the first path being restored, failing
back to the set of primary paths.
- 5 6. The method of claim 2, wherein first path is
determined using a round robin approach.
7. The method of claim 1, wherein the step of issuing
transactions includes:
10 determining a first path within the set of primary
paths;
issuing a transaction to the device using the first
path;
responsive to the transaction failing, determining a
15 second path within the set of standby paths; and
issuing the transaction to the device using the
second path.
8. The method of claim 7, further comprising:
20 marking the first path as down or inactive.
9. The method of claim 7, further comprising:
responsive to the first path being restored, adding
the first path back to the set of primary paths and
25 adding the second path back to the set of standby paths.
10. The method of claim 7, wherein first path is
determined using a round robin approach.

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11. The method of claim 1, wherein the device is a first device and the path control module is a first path control module, the method further comprising:

5 configuring a second path control module for the second device with a set of primary paths for the second device, wherein the set of primary paths for the second device is the set of standby paths for the first device; and

10 configuring the path control module with the set of standby paths for the second device, wherein the set of standby paths for the second device is the set of primary paths for the first device.

12. An apparatus for performing multiple path input/output, the apparatus comprising:

15 a path control module for a device, wherein the path control module is configured with a set of primary paths for the device and a set of standby paths for the device; and

20 a device driver for the device, wherein the device driver issues transactions to the device using paths selected from the set of primary paths.

13. The apparatus of claim 12, wherein the path control module receives a transaction request from the device driver and determines a first path within the set of primary paths;

wherein the device driver issues a transaction to the device using the first path; and

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wherein the path control module fails over to the set of standby paths responsive to the transaction failing.

5 14. The apparatus of claim 13, wherein the path control module determines a second path within the set of standby paths and wherein the device driver issues the transaction to the device using the second path.

10 15. The apparatus of claim 13, wherein the path control module fails back to the set of primary paths responsive to the first path being restored.

16. The apparatus of claim 12, wherein the path control
15 module determines a first path within the set of primary paths;

wherein the device driver issues a transaction to the device using the first path;

wherein the path control module determines a second
20 path within the set of standby paths responsive to the transaction failing; and

wherein the device driver issues the transaction to the device using the second path.

25 17. The apparatus of claim 16, wherein the path control modules adds the first path back to the set of primary paths and adds the second path back to the set of standby paths responsive to the first path being restored.

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18. A computer program product, in a computer readable medium, for performing multiple path input/output, the computer program product comprising:

instructions for configuring a path control module
5 for a device with a set of primary paths for the device;
instructions for configuring the path control module
with a set of standby paths for the device; and
instructions for issuing transactions to the device
using paths selected from the set of primary paths.

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19. The computer program product of claim 18, wherein the instructions for issuing transactions include:

instructions for determining a first path within the
set of primary paths;
15 instructions for issuing a transaction to the device
using the first path; and
instructions, responsive to the transaction failing,
for failing over to the set of standby paths.

20 20. The computer program product of claim 18, wherein the instructions for issuing transactions include:

instructions for determining a first path within the
set of primary paths;
instructions for issuing a transaction to the device
25 using the first path;
instructions, responsive to the transaction failing,
for determining a second path within the set of standby
paths; and
instructions for issuing the transaction to the
30 device using the second path.